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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/253,793	02/22/99	ROBISON	J 4164-P

LLOYD W SADLER
MCCARTHY & SADLER
SUITE 100
39 EXCHANGE PLACE
SALT LAKE CITY UT 84111

QM02/0719

EXAMINER

KEASEL, E

ART UNIT

PAPER NUMBER

3754

DATE MAILED: 07/19/00

Please find below and/or attached an Office communication concerning this application or
proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/253,793

Applicant(s)

Roblson et al.

Examiner

Eric Keasel

Group Art Unit

3754



☒ Responsive to communication(s) filed on 30 Jun 2000

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11, 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) 13-20 is/are pending in the applicat

Of the above, claim(s) _____ is/are withdrawn from consideration

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 13-20 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

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DETAILED ACTION

Specification

1. In light of the arguments presenting with the amendment, filed 30 June 2000, the specification is objected because of the definition of “reasonable ductility”. The specification (especially pages 11 and 19) defines reasonable ductility as being more ductile than the brittle ceramic materials used in the plug head. The other structural items, including the plug head band, are disclosed as more ductile and many potential materials are cited including aluminum and its alloys and titanium and its alloys.

Applicant’s arguments state that the plug head band of Maier et al. is not ductile because it is made from aluminum titanate. However, applicant has already stated that aluminum and its alloys are reasonably ductile. Either the disclosure is not enabling for the amended claim 13 (i.e. the materials cited in the specification and claim 19 are not ductile) or applicant’s arguments regarding the Maier et al. reference are incorrect.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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3. In light of applicant's arguments, claims 13-20 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a valve plug head with a plug head band made of the materials recited in claim 19, does not reasonably provide enablement for a plug head band made of a ductile material. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. Applicant has argued that aluminum and its alloys are not ductile; however, aluminum and its alloys are specifically disclosed (and claimed) as being reasonably ductile.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 13-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The conflicting definitions of ductility presented in Paper No. 7 and the specification and claims renders the claims indefinite. If aluminum and its alloys are not considered ductile, then claim 19 contradicts claim 13.

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Claim 14, line 2 recites "a band" which appears to be a double inclusion of a "a plug head band" of claim 13, line 3. It is vague and indefinite as to whether this is intended to be the same band or perhaps a different band.

6. In light of the above informalities, the claims have been examined as could best be understood by the examiner. The examiner's failure to apply prior art to any of the claims should not be construed as an indication of allowable subject matter.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

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8. Claims 13-20 (as understood) are rejected under 35 U.S.C. 103(a) as being unpatentable over Maier et al. in view of Szymaszek et al.

Maier et al. disclose a ceramic valve plug head (2), a valve plug stem (3), and a plug head band (4). The preferred materials for the band include aluminum titanate (an aluminum alloy). The band is in contact with the head and the stem.

The band of Maier et al. has a first side (engaging the head) greater in height than a second side (its top or bottom). However, applicant may intend that the second side be the side opposite the first side. Maier et al. do not show this. It would have been an obvious matter of design choice to have made the first side greater in height than the second (opposite) side, since applicant has not disclosed that doing so solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with the ratio of the heights of the sides in any proportion as long as the friction fit between the retainer and the plug is great enough so that the retainer does not slip. In fact, Maier et al. use this friction as their means for fastening.

Maier et al. do not disclose means for fastening as a plurality of nuts and bolts or pins. Szymaszek et al. disclose a similar valve plug head (30), valve plug stem (20), and valve head plug retainer (42). Szymaszek et al. use a plurality a bolts threaded through the retainer and into the plug (obviating the need for nuts). The bolts are considered an equivalent of the pins. It would have been obvious to one having ordinary skill in the art at the time the invention was

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made to have used the means for fastening of Szymaszek et al. in the invention of Maier et al. in order to secure the head, stem, and retainer as taught by Szymaszek et al.

Response to Arguments

9. Applicant's arguments filed 30 June 2000 have been fully considered but they are not persuasive.

Applicant argues that the aluminum titanate (an aluminum alloy) of Maier et al. is not ductile enough for the head band. However, aluminum and its alloys are specifically disclosed as an acceptable material in the specification and claimed in dependent claim 19.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Keasel whose telephone number is (703) 308-6260.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver, can be reached on (703) 308-2582. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7766.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0861.

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July 18, 2000


KEVIN SHAVER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700
7/18/00